

15 GHz. Prior to commencing short-term operation of a remote pickup broadcast station, a remote pickup automatic relay station, an aural broadcast STL station, an aural broadcast intercity relay station, a TV STL station, a TV intercity relay station, a TV translator relay station, a TV pickup station, or a TV microwave booster station within the 4-mile (6.4 kilometer) radius Commonwealth of Puerto Rico Protection Zone (centered on NAD-83 Geographical Coordinates North Latitude 18° 20' 38.28", West Longitude 66° 45' 09.42"), an applicant must notify the Arecibo Observatory, located near Arecibo, Puerto Rico. Operations within the Puerto Rico Coordination Zone (*i.e.*, on the islands of Puerto Rico, Desecheo, Mona, Vieques, or Culebra), but outside the Protection Zone, whether short term or long term, shall provide notification to the Arecibo Observatory prior to commencing operation. Notification should be directed to the following:

Interference Office
Arecibo Observatory
Post Office Box 995
Arecibo, Puerto Rico 00613
Tel. (809) 878-2612
Fax (809) 878-1861
E-mail prcz@naic.edu

(2) Notification of short-term operations may be provided by telephone, fax, or electronic mail. The notification for long-term operations shall be written or electronic, and shall set forth the technical parameters of the proposed station, including the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Observatory. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. After receipt of such applications in non-emergency situations, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted. In emergency situations in which prior notification or approval is not practicable, notification or approval must be accomplished as soon as possible after operations begin.

K. Part 78 of Chapter I of Title 47 of the Code of Federal Regulations is amended as

follows:

1. The authority citation in Part 78 continues to read:

AUTHORITY: Secs. 2, 3, 4, 301, 303, 307, 308, 309, 48 Stat., as amended, 1064, 1065, 1066, 1081, 1082, 1083, 1084, 1085; 47 U.S.C. 152, 153, 154, 301, 303, 307, 308, 309.

2. Section 78.19(c) of this chapter is redesignated Section 78.19(c)(1) and Section 78.19(c)(2) is added to read as follows:

§ 78.19 Interference.

* * * * *

(c)(2) Any applicant for a new permanent base or fixed station authorization to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(i) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the transmit antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective isotropic radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(ii) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has

satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(iii) The provisions of this paragraph do not apply to operations that transmit on frequencies above 15 GHz.

L. Part 80 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation in Part 80 continues to read:

AUTHORITY: Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609; 3 UST 3450, 3 UST 4726, 12 UST 2377.

2. Section 80.21(f) is added to read as follows:

§ 80.21 Supplemental information required.

* * * * *

(f) Any applicant for a new permanent base or fixed station to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow a period of 20 days

for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(3) The provisions of this paragraph do not apply to operations that transmit on frequencies above 15 GHz.

M. Part 87 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation in Part 87 continues to read:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

2. Section 87.23(a) of this chapter is redesignated Section 87.23(a)(1) and Section 87.23(a)(2) is added to read as follows:

§ 87.23 Supplemental information required.

* * * * *

(a)(2) Any applicant for a new permanent base or fixed station to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application

is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, if appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(3) The provisions of this paragraph do not apply to Civil Air Patrol stations or to operations that transmit on frequencies above 15 GHz.

N. Part 90 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 90 continues to read as follows:

AUTHORITY: Sections 4, 303, and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, and 332, unless otherwise noted.

2. Section 90.129(e) is amended to read as follows:

§ 90.129 Supplemental information to be routinely submitted with applications.

* * * * *

(e) Applicants proposing to construct a radio station in the vicinity of radio astronomy observatories in West Virginia; on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra; or in the vicinity of a radio receiving zone in Colorado must submit the statements prescribed by Section 90.177.

3. The introductory paragraph to Section 90.177 is amended, and paragraph (f) is added, to read as follows:

§ 90.177 Protection of certain radio receiving locations.

This section pertains to applications for new or modified authorizations in the vicinity of the National Radio Astronomy Observatory, Green Bank, Pocahontas County, WV; the Naval Radio Research Observatory, Sugar Grove, Pendleton County, WV; the Arecibo

Observatory, which is part of the National Astronomy and Ionosphere Center, located near Arecibo, PR; the Table Mountain Radio Receiving Zone, Boulder County, CO.; the Federal Communications Commission monitoring stations; and other protected sites.

* * * * *

(f) Any applicant for a new permanent base or fixed station to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, if appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(3) The provisions of this paragraph do not apply to operations that transmit on frequencies above 15 GHz.

O. Part 95 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 95 continues to read as follows:

AUTHORITY: Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303.

2. Section 95.42 is added to read as follows:

§ 95.42 Considerations in the Puerto Rico Coordination Zone.

Any applicant for a new base or fixed station authorization to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(3) The provisions of this paragraph do not apply to operations that transmit on frequencies above 15 GHz.

3. Section 95.192(d) is added to read as follows:

§ 95.192 (FRS Rule 2) Authorized locations.

(d) Anyone intending to operate an FRS unit on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the unit. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, the unit may be allowed to operate.

4. Section 95.206(c) is added to read as follows:

§ 95.206 (R/C Rule 6) Are there any special restrictions on the location of my R/C station?

(c) Anyone intending to operate an R/C station on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the unit. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the

Observatory from interference, the unit may be allowed to operate.

5. Section 95.405(d) is added to read as follows:

§ 95.405 (CB Rule 5) Where may I operate my CB station?

(d) Anyone intending to operate a CB station on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the unit. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, the unit may be allowed to operate.

6. Section 95.840 is added to read as follows:

§ 95.840 Considerations in the Puerto Rico Coordination Zone.

Any applicant for a new IVDS system authorization to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission.

The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

7. Section 95.1003(c) is added to read as follows:

§ 95.1003 Authorized locations.

(c) Anyone intending to operate an LPRS transmitter on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the transmitter. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, the unit may be allowed to operate.

P. Part 97 of Chapter I of Title 47 of the Code of Federal Regulations is amended as

follows:

1. The authority citation in Part 97 continues to read:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609, unless otherwise noted.

2. Section 97.203(h) is added to read as follows:

§ 97.203 Beacon station.

* * * * *

(h) The provisions of this paragraph do not apply to beacons that transmit on the 1.2 cm or shorter wavelength bands. Before establishing an automatically controlled beacon within 16 km (10 miles) of the Arecibo Observatory or before changing the transmitting frequency, transmitter power, antenna height or directivity of an existing beacon, the station licensee must give written notification thereof to the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Licensees who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above mean sea level (AMSL), antenna center of radiation above ground level (AGL), antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Licensees may wish to consult interference guidelines provided by Cornell University.

(2) If an objection to the proposed operation is received by the FCC from the Arecibo Observatory, Arecibo, Puerto Rico, within 20 days from the date of notification, the FCC will consider all aspects of the problem and take whatever action is deemed appropriate.

3. Section 97.205(h) is added to read as follows:

§ 97.205 Repeater station.

* * * * *

(h) The provisions of this paragraph do not apply to repeaters that transmit on the 1.2 cm or shorter wavelength bands. Before establishing a repeater within 16 km (10 miles) of the Arecibo Observatory or before changing the transmitting frequency, transmitter power, antenna height or directivity of an existing repeater, the station licensee must give written notification thereof to the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical parameters of the proposal. Licensees who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above mean sea level (AMSL), antenna center of radiation above ground level (AGL), antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Licensees may wish to consult interference guidelines provided by Cornell University.

(2) If an objection to the proposed operation is received by the FCC from the Arecibo Observatory, Arecibo, Puerto Rico, within 20 days from the date of notification, the FCC will consider all aspects of the problem and take whatever action is deemed appropriate.

Q. Part 101 of Title 47 of the Code of Federal Regulations is amended as follows:

1. The authority cite for Part 101 continues to read as follows:

AUTHORITY: 47 U.S.C. 154 and 303, unless otherwise noted.

2. The heading of Section 101.123 is amended, and Section 101.123(d) is added to read as follows:

§ 101.123 Quiet zones and Arecibo Coordination Zone.

* * * * *

(d) Any applicant for a new permanent fixed station authorization to be located on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location of a station on these islands and would increase the likelihood of the authorized facility causing interference, shall notify the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613, in writing or electronically, of the technical

parameters of the proposal. Applicants may wish to consult interference guidelines, which will be provided by Cornell University. Applicants who choose to transmit information electronically should e-mail to: prcz@naic.edu

(1) The notification to the Interference Office, Arecibo Observatory shall be made prior to, or simultaneously with, the filing of the application with the Commission. The notification shall state the geographical coordinates of the antenna (NAD-83 datum), antenna height above ground, ground elevation at the antenna, antenna directivity and gain, proposed frequency and FCC Rule Part, type of emission, effective radiated power, and whether the proposed use is itinerant. Generally, submission of the information in the technical portion of the FCC license application is adequate notification. In addition, the applicant shall indicate in its application to the Commission the date notification was made to the Arecibo Observatory.

(2) After receipt of such applications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections in response to the notification indicated. The applicant will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory and to file either an amendment to the application or a modification application, as appropriate. If the Commission determines that an applicant has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, its application may be granted.

(3) The provisions of this paragraph do not apply to operations that transmit on frequencies above 15 GHz.

APPENDIX B: FINAL REGULATORY FLEXIBILITY ANALYSIS

As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603 ("RFA"), an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated into the *NPRM* in ET Docket No. 92-6.³⁴ The Commission sought written public comments on the proposals in the *NPRM*, including the IRFA. The Commission's Final Regulatory Flexibility Analysis ("FRFA") in this *Report and Order* conforms to the RFA, as amended by the Contract With America Advancement Act of 1996 (CWAAA), Pub. L. No. 104-121, 110 Stat. 847 (1996).³⁵

Need For and Objective of the Rules

In this decision, the Commission establishes a Coordination Zone that covers the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra within the Commonwealth of Puerto Rico (the Puerto Rican Islands). The Arecibo Observatory is the largest and most sensitive radio astronomy facility in the world and the increasing number of communications services on Puerto Rico has caused increased interference problems for the Observatory. The Coordination Zone is needed to inform the Arecibo Observatory of future stations that may have a potential to interfere with the Observatory's operations and to encourage applicants for radio services to coordinate their operations with the Observatory to prevent interference problems.

Summary of Issues Raised by the Public Comments in Response to the IRFA

No comments were filed in direct response to the IRFA. In general comments to the *NPRM*, however, some parties raised concerns that establishment of a Coordination Zone might burden Commission licensees and license applicants, including some entities that may be small businesses. Specifically, some parties that would be affected by the Coordination Zone argue that it is an unnecessary burden that would delay the provision of communications services and increase the costs of establishing an operation with limited benefit to the Observatory. Some comments argue that this action would give the Observatory additional rights to spectrum not allocated to the Radio Astronomy Service and would delegate authority to the Observatory to determine whether a proposed station would cause interference and whether the application should be granted. However, the Commission has determined that providing the Observatory information regarding proposed facilities would be a minimal burden, and that the public benefit in protecting the Observatory's operations from harmful interference justifies any minimal burden that may be created. Further, an applicant may

³⁴ 11 FCC Rcd 1716 (1996).

³⁵ Subtitle II of the CWAAA is "The Small Business Regulatory Enforcement Fairness Act of 1996" (SBREFA), codified at 5 U.S.C. § 601 *et seq.*

refuse to make modifications that it believes are unreasonable and permit the Commission to determine whether such modifications are necessary. If the Commission determines that an applicant has made a reasonable effort to address the interference concerns of the Observatory, the application may be granted even if the resultant operations cause interference to the Observatory.

Description and Estimate of Small Entities Subject to Which Rules Will Apply

The rules adopted in the *Report and Order* will apply to applicants for Part 5, 21, 22, 23, 24, 25, 26, 27, 73, 74, 78, 80, 87, 90, 94, 95 and 97 services within the Coordination Zone, with the following exceptions: The rules will apply only to applicants for services that operate on frequencies under 15 GHz, and will not apply to applicants for mobile stations in land mobile radio services, temporary base or temporary fixed stations (other than short-term broadcast auxiliary operations), the Civil Air Patrol, new amateur stations (other than amateur beacon and repeater stations within 10 miles of the Observatory), mobile Earth terminals licensed under Part 25, or stations aboard ships or aircraft. The Commission has not developed a definition of small entities applicable to the services affected by this *Report and Order*. Therefore, the applicable definition of small entity is the one under the Small Business Administration (SBA) rules applicable to Communications Services, Not Elsewhere Classified. This definition provides that a small entity is expressed as one with \$11.0 million or less in annual receipts.³⁶ We acknowledge the likelihood that under this definition the great majority of entities affected by the *Report and Order* are small entities; however, the number of such entities cannot be accurately estimated.

Projected Reporting, Recordkeeping and Other Compliance Requirements of the Rules

The Coordination Zone will require applicants for new and modified radio facilities in various communications services within the affected areas to provide notification of their proposed operations to the Observatory, at the time their applications are submitted to the Commission. The Coordination Zone will facilitate advanced coordination between the Observatory and applicants for new services so that applicants can consider the protection of the Observatory when designing their system. Service applicants will be responsible for making reasonable efforts to accommodate the interference concerns of the Observatory and the Observatory will be permitted to file comments regarding an application up to 20 days after the application is filed with the Commission.

The Coordination Zone encompasses a large number of services, operating at differing powers and frequencies. Additionally, factors such as terrain and propagation characteristics

³⁶ 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4899.

further complicate interference evaluations. Therefore, we find that it would be extremely time-consuming and difficult for the Commission to establish interference standards that would apply to all service applicants. However, we concur with comments that state that interference guidelines could lessen coordination problems, and Cornell has proposed to develop such guidelines. While we are cognizant of the concerns of service providers regarding Cornell's objectivity in developing these guidelines, we believe that Cornell will have an incentive to cooperate with service providers. If Cornell develops unrealistically stringent guidelines, service providers would undoubtedly challenge them, resulting in a large administrative burden on Cornell. Further, under a guideline approach, the Commission would remain the sole entity that has the authority to delay any service applications, if we find that an applicant has not made reasonable efforts to avoid interference to the Observatory.

We are not establishing Commission interference standards, but are adopting SBE's alternative proposal that Cornell provide interference guidelines to service applicants so that applicants may consider protection to the Observatory in the early design phase of radio facilities. Cornell has stated that such guidelines can be made available to applicants in advance of application preparation. We believe that these guidelines will help ensure that coordination between applicants and the Observatory will proceed in a smooth manner, and as experience is gained by both applicants and Cornell, become routine.

Steps Taken to Minimize Significant Economic Impact on Small Entities Consistent with Stated Objectives

To the extent that a service applicant and the Observatory agree that the applicant's proposed operations would cause harmful interference to the Observatory, the applicant may either pay to modify its own proposed operations or -- with the consent of the Observatory -- to upgrade the Observatory's facilities. Should a dispute arise between the Observatory and the applicant regarding whether the applicant has made a reasonable effort to avoid interference to the Observatory, the applicant may refuse to pay for any modifications or upgrades recommended by the Observatory and permit the Commission to resolve the dispute. To the extent that the Commission determines that reasonable efforts have been made by the applicant to protect the Observatory from interference, there will be no further obligation for the applicant to modify its proposed operations or to upgrade the Observatory's facilities. Consequently, if under those circumstances the Observatory believes that the applicant's proposed operations must be modified or its own facilities upgraded to protect the Observatory from interference, the Observatory will be required to pay for any such modification or upgrade.

Report to Congress: The Commission shall send a copy of this Final Regulatory Flexibility Analysis, along with this *Report and Order*, in a report to Congress pursuant to the

Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A).
A copy of this FRFA will also be published in the Federal Register.

APPENDIX C: COMMENTING PARTIESComments to *NPRM* in ET Docket No. 96-2

The American Radio Relay League, Incorporated
The Asociacion De Radiodifusores De Puerto Rico
Bruce Balick, Professor of Astronomy, University of Washington
Frank N. Bash, Director, McDonald Observatory at Mount Locke, Univ. of Texas at Austin
Celpage, Inc.
Center for Astrophysics-Harvard College Observatory, Smithsonian Astrophysical Observatory
Cornell University
John M. Dickey, Professor of Astronomy, University of Minnesota
Carl Heiles, Professor of Astronomy, University of California, Berkeley
Mayor of Arecibo
Mayor of Hatillo
National Research Council, Committee on Radio Frequencies
National Science Foundation
Puerto Rico Amateur Radio League, Inc.
Puerto Rico Telephone Company
P.R./V.I. Volunteer Frequency Coordinators, Inc.
Morton S. Roberts, Senior Scientist, National Radio Astronomy Observatory
Society of Broadcast Engineers, Inc.
TRW, Inc.
Paul A. Vanden Bout, Director, National Radio Astronomy Observatory

Reply Comments to *NPRM* in ET Docket No. 96-2

Centennial Cellular Corp.
Cellular Communications of Puerto Rico, Inc.
Celpage, Inc.
Cornell University
Puerto Rico Telephone Company

Late-Filed Comments to *NPRM* in ET Docket No. 96-2

National Research Council, National Academy of Sciences, Committee on Radio Frequencies